

AMENDMENT TO THE CLAIMS

Please enter the following amendments to the claims without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents as follows:

1. (currently amended) A recombinant adenovirus that mediates enhanced gene transfer to primary tumor cells, wherein said adenovirus comprises a fiber gene modified by homologous recombination between a plasmid comprising ~~the~~ an adenovirus with a mutated fiber gene linearized at a nucleotide restriction site in the mutated fiber gene ~~having a SmaI site~~ and a plasmid comprising a cDNA encoding the modified fiber comprising a tripeptide having the sequence Arg-Gly-Asp (RGD) into the HI loop domain of the fiber knob.
2. (previously presented) The recombinant adenovirus of claim 1, wherein said adenovirus can achieve coxsackievirus and adenovirus receptor-independent gene transfer.
3. (original) The recombinant adenovirus of claim 1, wherein said adenovirus further comprises an additional modification to said fiber knob, thereby ablating the native tropism of said adenovirus.
4. (original) The recombinant adenovirus of claim 1, wherein said modified fiber knob retains its ability to trimerize and retain its native biosynthesis profile.
- 5-8. (canceled)
9. (previously presented) The recombinant adenovirus of claim 1, wherein the adenoviral vector encoding said adenovirus further comprises a herpes simplex virus-thymidine kinase gene.
10. (canceled)
11. (previously presented) A method of killing tumor cells in an individual comprising the steps of: injecting an effective amount of the recombinant adenovirus of claim 9 to the tumor in said individual; and treating said individual with ganciclovir.
- 12-15. (canceled)
16. (currently amended) A method of increasing the ability of an adenovirus to transduce primary tumor cells *in vitro* or *ex vivo*, comprising the steps of: modifying the fiber gene of said adenovirus by homologous recombination between a plasmid comprising ~~the~~ an adenovirus with a mutated fiber gene linearized at a nucleotide restriction site in the mutated fiber gene ~~having a SmaI site~~ and a plasmid comprising a cDNA encoding the modified fiber

comprising a tripeptide having the sequence Arg-Gly-Asp (RGD) into the HI loop domain of the fiber knob.

17-21. (canceled)

22. (currently amended) The method of claim 16, wherein ~~said tumor cell is~~ tumor cells are selected from the group consisting of cancer ascite samples and primary tumor explants.

23. (original) The method of claim 16, wherein the adenoviral vector encoding said adenovirus further comprises a therapeutic gene.

24 – 25. (canceled)

26. (new) The recombinant adenovirus of claim 1, wherein said nucleotide restriction site is defined by the nucleotide sequence 5'ATTTAAAT3'.

27. (new) The method of claim 16, wherein said nucleotide restriction site is defined by the nucleotide sequence 5'ATTTAAAT3'.

28. (new) A recombinant adenovirus that mediates enhanced gene transfer to primary tumor cells, wherein said adenovirus comprises a fiber gene modified by homologous recombination in bacterium between a plasmid comprising an adenovirus with a mutated fiber gene linearized at a nucleotide restriction site in the mutated fiber gene and a plasmid comprising a cDNA encoding the modified fiber comprising a tripeptide having the sequence Arg-Gly-Asp (RGD) into the HI loop domain of the fiber knob.

29. (new) The recombinant adenovirus of claim 27, wherein said nucleotide restriction site is defined by the nucleotide sequence 5'ATTTAAAT3'.